INSTRUCTIONS FOR COMPLETION OF KENTUCKY WATER WELL FORMS

INTRODUCTION

This form was designed to obtain useful groundwater information from water well drillers. This information is compiled into the Kentucky groundwater database. The database is used to help protect and promote groundwater in Kentucky and to identify resources and problem areas for groundwater users.

Please complete this form carefully and completely. If you have any questions about this form, contact the Kentucky Division of Water - Groundwater Branch, 14 Reilly Road, Frankfort Office Park, Frankfort, Kentucky 40601. Telephone (502) 564-3410.

(1) WATER WELL LABEL

The water well label is divided into two parts. Both parts have a pre-printed 8-digit Kentucky well identification number.

If this is a new well, firmly attach the larger section of the label to the well casing. The well casing should be free from oils, moisture, dirt or rust. Attach the smaller section of the water well label to the space provided on the form. Placing the label on the form assures us that this is the first and only well to which this identification number has been assigned. Be certain to use the water well label (yellow), not the monitoring well label (blue).

If the well is being reworked or abandoned, inspect the well to determine whether a Kentucky well identification label is attached. If a Kentucky well identification number has previously been assigned to the well, DO NOT attach a new label. Copy the identification number in the spaces provided in Section 3 of the water well form. If there is no label on an existing well, call the Division of Water to determine if there is a prior record for the well.

(2) GENERAL INFORMATION

Fill in the name and mailing address for the well owner, and the actual well site address, if different from the mailing address.

(3) WELL IDENTIFICATION NUMBER

Copy the Kentucky well identification number from the well label if you have attached one to the form. If a Kentucky well identification number was previously assigned to the well, copy this into the spaces in Section 3.

(4) VARIANCE WELL

Mark here if a variance has been requested for this well. Regulations require an approved variance prior to construction.

(5) WELL LOCATION

USGS 7.5-minute topographic quadrangle map name and county name MUST be indicated. DO NOT fill in the blanks for latitude and longitude.

Two alternatives are available for providing well locations: (1) well location marked on a photocopy of part of a topographic map, or (2) well location obtained by a GPS (Global Positioning System) receiver.

If you submit a topographic map, the well location must be clearly marked with a small “X” and should be labeled with the Kentucky well identification number. Use a photocopy of the appropriate part of the map. Do not use reductions or enlargements. Latitude and longitude will be determined by the Division of Water from your map, so please be as accurate as possible.

If you submit a well location obtained by a GPS receiver, report the GPS reading on the Division of Water GPS reporting form. (Call or write for these forms.) Five readings should be taken at intervals of one minute apart. The Division of Water will average these readings to determine the location.

(6) GENERAL WELL CONSTRUCTION

Mark the appropriate boxes and fill in all blank spaces. Note the units for required measurements.

Drilling Method: If “other”, specify the method used.

Work Type: If “other”, specify the type of work done. Check all that apply. For example, if a borehole proved to be dry and was plugged, then both “New Well” and “Plug” should be checked.

Surface Elevation: Elevation should be taken from the topographic map.

Total Depth: Depth in feet from ground surface to bottom of the borehole.

Depth to Bedrock: Depth to bedrock is the distance from the ground surface to the top of the bedrock. It may also be interpreted as soil thickness. For alluvial wells, or where no bedrock is encountered, write N/A for “not applicable”. If bedrock is encountered at the surface, write “0”.

Static Water Level: Depth to static water level is measured from the ground surface to the water level in the well before the well is pumped.

(7) WELL TEST

Fill in the date of the well test and the testing method used. If “other”, specify the method used.

Well Yield: Record estimated well yield. Well yield is measured in gallons per minute (gpm) or gallons per hour (gph).

Drawdown: If a standard drawdown test is performed, indicate the feet of drawdown, the amount of time for the test, and the pumping rate. If a step drawdown test is performed, complete the information for both portions of the test. If necessary, use additional sheets.
Drawdown is the depth to water from the ground surface during well pumping minus the static water level before pumping. For example, if static water level is 100 feet and water level when the well is pumped is 120 feet, the drawdown is 120 - 100 = 20 feet. The rate of pumping during the test should also be recorded.

Flowing Artesian Well: If the well is a flowing artesian well, fill in the appropriate information.

(8) WATER QUALITY

General Note: All wells MUST be sufficiently developed (pumped, bailed or surged) prior to water-quality sampling to insure that the water analyzed is from the formation. Sampled water should not be stagnant or contain drilling fluid or residual disinfectant. For instructions on disinfecting or sampling see A Handbook for the Kentucky Water Well User.

Appearance and Odor: Record this information after the well is developed, but prior to the addition of disinfectant, or at any other time when no residual disinfectant is present.

Well Disinfectant: All wells MUST be disinfected upon completion. Indicate type and amount of disinfectant used. Disinfectant types may include bleach, HTH, etc. NOTE: Do not use bleaches that contain detergent additives.

Coliform Analysis: Kentucky statutes require a test for the presence of fecal coliform bacteria to be performed after disinfection. Fill in the appropriate response for the test results. Results should be listed as <1.0 (less than 1.0), TNTC (too numerous to count), CONFL (confluent growth), or the number of coliform colonies per 100 ml. The information for this section can be obtained from the laboratory report.

(9) WELL COMPLETION

General Note: Well casing MUST extend at least four (4) inches above the ground surface.

Hole Diameter, Casing Diameter, and Casing Type: Specify variations in casing lengths (or intervals). Casing types include PVC, steel, galvanized steel, etc. Include screen types and intervals here and also below in the section for well screens.

Casing Joint: Casing joints include glued couplers, threaded couplers, flush threaded pipes, etc., and may include more than one type within the same well. Mark all appropriate choices.

Screen or Casing Perforation (if applicable): Report screen slot size information in this section.

Annulus Fill and Seal: Indicate the materials used to seal the annulus or area between the casing and formation, or between the outer casing and a liner (refer to the regulations for required seal and backfill standards). The description MUST include type and interval for each material used. List the materials, in order from the ground surface to the bottom of the well, and the interval in which they were used. Backfill materials include bentonite (specify whether chip, pellet or powdered), bentonite grout, cement grout, drill cuttings, or puddled clay. No sand or porous material may be used as backfill or seal material. Specify whether sand or gravel was used around well screens, and include brand name or type.

(10) PHYSIOGRAPHIC OR HYDROLOGIC REGION

Mark the appropriate region. A base map showing these regions may be obtained from the Division of Water.

(11) WELL SERVICE

Fill in the estimated number of individuals the well will serve and the number of service connections. Each household, apartment, business, mobile home or other dwelling is considered a service connection. Livestock and irrigation hookups are not considered service connections.

(12) WELL USE

Mark all appropriate responses. For “other”, indicate well’s proposed use.

(13) SKETCH MAP

Draw a map in the box that shows the well location and distances from the well to permanent structures, nearby roads and streams, septic drain fields and other potential contamination sources. Draw an arrow to show north.

(14) PUMP DATA

Fill in the appropriate information on pump installation or replacement.

(15) LITHOLOGIC LOG

Please fill out this section in detail. Attach additional sheets if needed.

Feet Below Surface: Record all depths in feet below ground surface. The ground surface will have a depth of zero (0) feet.

Description: Describe the formations encountered during drilling in relation to stated depth. Formation types include consolidated and unconsolidated materials such as soil, sand, gravel, silt, clay, sandstone, shale, conglomerate, limestone, dolostone, coal, chert, etc. Also note the loss of any drilling fluid and the presence of voids.

Water Quality and Quantity: Be as exact as possible in indicating the depths or intervals where water is encountered. List water flow from formation in GPM (gallons per minute) or GPH (gallons per hour), if determined.

(16) COMMENTS

Provide information regarding problems encountered during drilling or casing installations, or additional information concerning construction details.

(17) AFFIRMATION

Operator’s Name: Type or print the name of the driller or rig operator who constructed the well, his or her state certification or permit number, and the drilling company’s address.

Signature: Only the state certified water well driller responsible for the well may sign this form. A rig operator may not sign the form.

Distribution: Once the well is completed, this form MUST be distributed as follows: white copy to Division of Water, yellow copy to well owner, pink copy to driller’s files.